

isc N-Channel MOSFET Transistor

IPP60R074C6

• FEATURES

- With low gate drive requirements
- Very high commutation ruggedness
- Extremely high frequency operation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

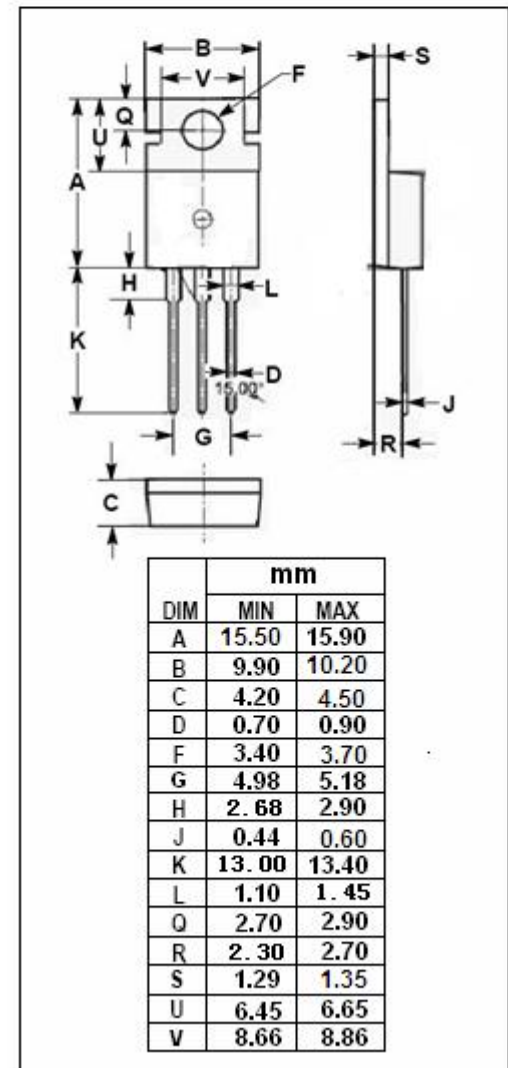
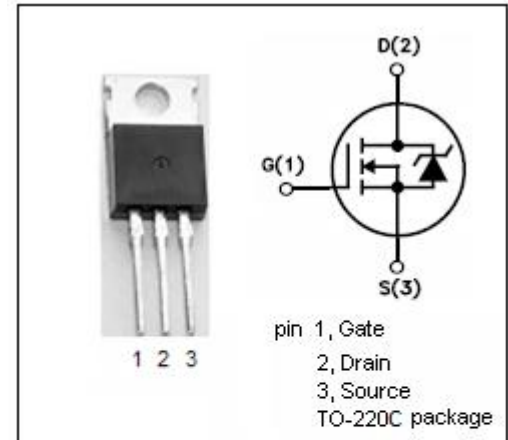
- Switching applications
- LCD&PDP TV
- PC silverbox
- UPS and solar

• ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|--------------|--------------------|
| V_{DS} | Drain-Source Voltage | 600 | V |
| V_{GS} | Gate-Source Voltage | ± 20 | V |
| I_D | Drain Current-Continuous@ $T_c=25^{\circ}\text{C}$ $T_c=100^{\circ}\text{C}$ | 57.7 31.6 | A |
| I_{DM} | Drain Current-Single Pulsed | 151 | A |
| P_D | Total Dissipation | 480.8 | W |
| T_j | Operating Junction Temperature | -55~150 | $^{\circ}\text{C}$ |
| T_{stg} | Storage Temperature | -55~150 | $^{\circ}\text{C}$ |

• THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|----------------|---------------------------------------|------|----------------------|
| $R_{th(ch-c)}$ | Channel-to-case thermal resistance | 0.26 | $^{\circ}\text{C/W}$ |
| $R_{th(ch-a)}$ | Channel-to-ambient thermal resistance | 62 | $^{\circ}\text{C/W}$ |



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ELECTRICAL CHARACTERISTICS

 T_C=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP | MAX | UNIT |
|---------------------|--------------------------------|--|-----|-----|---------|------|
| BV _{DSS} | Drain-Source Breakdown Voltage | V _{GS} =0V; I _D = 0.25mA | 600 | | | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} =±20V; I _D =1.4mA | 2.5 | | 3.5 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} = 10V; I _D =21A | | 67 | 74 | mΩ |
| I _{GSS} | Gate-Source Leakage Current | V _{GS} = ±20V; V _{DS} = 0V | | | ±0.1 | μA |
| I _{DSS} | Drain-Source Leakage Current | V _{DS} = 600V; V _{GS} = 0V@T _j =25°C T _j =150°C | | | 5 50 | μA |
| V _{SDF} | Diode forward voltage | I _{SD} =21A, V _{GS} = 0 V | | | 0.9 | V |

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